Doc Code: AP.PRE.REQ

PTO/SB/33 (07-05)
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
85197.85822-001

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Application Number	Filed
10/044,036	January 11, 2002

First Named Inventor
Christopher Kikta

Art Unit	Examiner
2151	Kamal B. Divecha

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☒ attorney or agent of record. Registration number 36,062.

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

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October 31, 2006
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner	: Kamal B. Divecha
Group Art Unit	: 2151
Applicants	: Christopher Kikta et al.
Serial No.	: 10/044,036
Filing Date	: January 11, 2002
Attorney Docket No.	: 85197.85822-001
For	: SMALL BUILDING AUTOMATION CONTROL SYSTEM

PRE-APPEAL BRIEF

In order to simplify this matter, this document is directed only to claim 19. Similar arguments can be made with the rest of the claims.

The Examiner made obvious errors with respect to claim 19. First, the Pascucci reference does not show a direct connection between the application controller and the network. Second, Pascucci does not show explicit addressing between the application controller and a control interface.

I. Direct connection to the network

Claim 19 states that the application controllers are directly connected to the communications network.

As to the Pascucci reference, the Examiner agrees that the application controllers are connected to the network by NCUs (network control units). The Examiner suggests that since an NCU is connected to the network, the NCU is part of the communications network, and therefore the application controller is directly connected to the communication network.

The patent says that the NCU are connected in a peer-to-peer network so that the NCUs can share information. Col. 28, lines 35-40. Since it is a peer-to-peer network, all devices on the network are treated equally. It is clear that the NCUs are the only

components on the peer-to-peer network. The application controllers are not given direct access to the peer-to-peer network, and therefore the application controllers are not part of the network.

Additionally, the NCUs effectively isolate the application controller from the network. The Pascucci reference makes clear that the NCUs are not standard network devices, but rather extremely complex control devices.

The Pascucci patent says:

> "A network control unit (NCU) in a facilities management system monitors and supervises heating ventilating and air conditioning (HVAC), lighting, and building functions. Network control units are interconnected by the N1 bus 1-9. As part of an N1 network, the NCU shares all data with all other NCUs in a dynamic data access relationship. A distributed system is formed because peer-to-peer communications allow each network control unit to access and use data acquired under the control of any other network control unit. Thus, information at any level is accessible to every NCU to integrate and optimize all components within a building. Network control units can also be interconnected to perform other control functions involving the use and monitoring of diverse physical sensors and equipment, such as a broad array of industrial control processes and other processes involving control systems." Col. 28, lines 30-44.

Further, the Pascucci patent says that network control units are made of network control modules, digital control modules, and expansion modules which are combined in various configurations. Col. 28, lines 27-30. Each of these sub-parts of the NCU is complex devices.

According to the patent, a network control "performs numerous background tasks, as discussed below, to assure that each of the nodes on the system is operating with the same global variables, is time synchronized, and has consistent directories of system names. In addition, software in the network control modules 1-1 to reduce data communications, to track the aging of data, and to provide a uniform means of isolating

high level software features from specialized operational units is discussed below." Col. 27, lines 55-63.

A digital control module is shown in Figure 2. The patent states:

"FIG. 2 shows digital control module 2-1 which also interfaces with a connector on a backplane. Digital control module 2-1 includes processor 2-3 and memory 2-5. Memory 2-5 is divided into a static random access memory section 2-7, and electronically programmable read only memory (EPROM) section 2-9, and an electronically erasable programmable read only memory (EEPROM) 2-11. In addition, digital control module 2-1 has input/output sections 2-13 and 2-15. A digital control module 2-1 may also be incorporated into a network control unit according to the invention, as discussed below. A digital control module conditions sensor inputs received through input/output sections 2-13 and 2-15 and reports changes to the network controller or network control module 1-1. In addition, in a facilities management system (FMS) the digital control module performs closed loop control for a plurality of control loops. Thus, closed loop control can be accomplished without a network control module. In addition, the digital control module 2-1 executes commands received from network control module 1-1. Digital control module 2-1 further may accept inputs either directly or through a function module. A function module (FM) also performs conditioning of an input or output signal. While a digital control module according to the invention can accept inputs directly (100-1,000 ohms, RTD (resistive temperance device) 4-20 mA, 0-10 volts DC) or through an input function module, all outputs from a digital control module 2-1 are characterized by function module selection. A function module (not shown) conditions signals but does not perform sophisticated processing. Such function modules, according to the invention, are tailored to accommodate the specific conditioning function required. Thus, a function module may contain sophisticated electronics tailored to perform a specific task or may be as simple as a single resistor." Col. 27, lines 20-54.

An expansion module is shown in Figure 3. The patent says:

"Expansion module (XM) 3-1 according to the invention, includes processor 3-3 and memory 3-5. The memory is typically divided into static random access memory (SRAM) 3-7 and electronically erasable programmable read only memory (EEPROM) 3-9. Point multiplex modules 3-11 provide a configurable input/output for the expansion modules. The expansion module is also a plug in module which plugs into a connector on a back plane in a node of a facilities management system. The expansion modules condition binary, analog and pulse inputs and report changes to the network controller or network control module 1-1. In addition, the expansion module executes binary output commands from network controller 1-1. Point multiplex modules 3-11 provide five configurations of expansion modules. These include a first configuration having 32 binary

inputs, a second configuration having 8 binary inputs and 8 pairs of outputs using momentary relays, a third configuration having 8 binary inputs and 8 magnetically latched relay outputs, a fourth configuration having 8 analog inputs and a fifth configuration having 8 binary inputs and 8 electrically maintained relay outputs." Col. 28, lines 7-26.

The network control module, the digital control module and the expansion module, individually, are not standard network devices. Rather, each is a highly complex component tailored specifically to provide substantial and extensive functionality to the control system. Any one of these would operate to isolate the application controller from the network. However, the NCU is made up of a combination of these devices, not simply one device.

The NCU, then, is a highly complex device which performs many functions besides simply connecting the application control to the communication network. Thus, the statement that the application controller shown in Pascucci is "directly connected" to the communications network is clearly erroneous. The application controller shown in Pascucci is isolated from the communications network by the NCU.

II. Explicit address

The Examiner states, "The explicit message disclosed in Pascucci does have an associated address with the message and its (sic) known in the art that without the destination address, a message to a destination could not be transmitted."

There is no indication that messages sent to the application controller from the NCU have an explicit address. Rather, the application controllers are connected to the NCU by way a unique interface such as an expansion module or a digital control.

Further, the statement that a message has to be associated with a destination address is simply wrong. As is well known, messages can be broadcasted (such as an FM

radio transmitter) where the address of the recipient is unknown. Further, communication over a wire line network can also be broadcasted to many different devices, such as in an analog cable television network.

Therefore, the rejection of the claims is erroneous. The other claims are similarly allowable.

Respectfully submitted,

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